UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/425,027	10/25/1999	TAKASHI SHIMIZU	104610	8990

25944 7590 11/21/2002

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
GOFF II, JOHN L	

ART UNIT	PAPER NUMBER
1733	15

DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/425,027	SHIMIZU ET AL.	
	Examiner	Art Unit	
	John L. Goff	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2002 (Amendment D)* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-6 and 12-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-6 and 12-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *25 September 2002* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is in response to Amendment D filed on 9/25/02. All previous objections to the drawings and the specification have been overcome. All previous rejections under 35 U.S.C. 112 have been overcome.

Claim Rejections - 35 USC § 112

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 4-6 and 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. In claims 4, 5, and 14-21, the phrase "film-like hot melt adhesive" is unclear and confusing. It is uncertain what is meant by the word "film-like". Does it mean a film of hot melt adhesive? It is suggested to change "film-like hot melt adhesive" to - - a film of hot melt adhesive - -. This issue should be clarified and reworded as appropriate.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 4-6 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Kozlowski (U.S. Patent 5,647,943) further taken with any of Winslow (U.S. Patent 5,399,220), Yoshida et al. (U.S. Patent 5,187,123), Spielau et al. (U.S. Patent 3,850,725), Simon (U.S. Patent 5,346,569), or Sato et al. (U.S. Patent 4,452,840).

The admitted prior art teaches that it was known to manufacture a formed lining for a vehicle comprising a top cover member (preformed film of hot melt adhesive laminated to a backside) bonded to a base member (preformed film of hot melt adhesive laminated to a front side) (Paper #8 page 6, lines 1-5). The base member is heated, softening the base and melting the adhesive applied thereon, and used to melt the adhesive of the top member (Specification page 2). The top member and base member are then bonded and formed at the same time along the entire length of each adhesive (Figures 4A and 4B and Specification page 1). The hot melt adhesive of the base member has a thickness of 15 to 75 μm for normal strength and 75 to 100 μm for high strength (Specification page 2).

Regarding claims 4, 5, and 13, the admitted prior art is silent on heating the base member prior to placement in a die and using a cold press to form the lining. However, it was a well-known technique in the art to heat the base member in an oven prior to forming the liner in a cold press as shown by Kozlowski. Kozlowski is directed to bonding a seat trim cover to a foam

cushion. Kozlowski teaches that heating the mold directly (a hot press) to bond and form the laminate may damage the trim (Column 1, lines 29-31). Therefore, Kozlowski shows heating the cushion (base member) in an oven and then inserting the cover and cushion into a cold press to form and bond the laminate (Column 2, lines 52-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the liner taught by the admitted prior art by heating the base member prior to placement in the mold and then using a cold press to bond and form the liner as taught by Kozlowski so that the fabric layers of the liner are not damaged.

Regarding claims 4 and 14-16, the admitted prior art is silent on using a web-like hot melt adhesive as the adhesive layer on the backside of the top cover member. However, the use of a patterned (web-like) adhesive layer is a well-known technique in the bonding art to form a laminate free of air bubbles as shown below by Winslow, Yoshida et al., Spielau et al., Simon, and Sato et al., and one of ordinary skill in the art at the time the invention was made would have readily appreciated using a patterned hot melt adhesive as taught by Winslow, Yoshida et al., Spielau et al., Simon, or Sato et al. on the backside of the top cover member in the process of the admitted prior art as modified by Kozlowski to provide a means for entrapped air to escape the laminate when the top member and base member are bonded.

Winslow is directed to bonding two disc halves together with adhesive to form a composite disc that is free of air bubbles and contaminates. Winslow teaches that applying the bonding adhesive in a pattern allows trapped air to escape during bonding, and thus, eliminates defects caused by trapped air bubbles and other contaminants (Column 1, lines 41-47 and Column 2, lines 59-62 and Column 3, lines 26-28). Yoshida et al. are directed to adhering

semiconductor chips to a lead frame. Yoshida et al. teach applying the bonding adhesive in a pattern to ensure that when the die is pressed to form the laminate existing air is forced out and not trapped within the laminate (Abstract and Column 2, lines 66-69 and Column 3, lines 1-12). Spielau et al. are directed to forming plastic sheet laminates using a thermoplastic adhesive. Spielau et al. teach applying the thermoplastic adhesive to the plastic sheets in a pattern so that when permeable materials are bonded they remain breathable (Column 3, lines 17-22). Simon is directed to manufacturing a glass laminate that is free of discontinuities found when air is trapped within the laminate. Simon teaches bonding two sheets of glass together with a plastic sheet that contains a pattern of projections. The projections allow air trapped within the laminate to be removed when laminating the glass-plastic-glass sandwich (Figures 1-3 and Column 1, lines 12-15 and 62-68 and Column 2, lines 1-10). Similarly, Sato et al. are directed to forming a glass-plastic-glass laminate wherein the plastic sheet used to bond the two glass sheets has a pattern on its surface. The pattern allows for deairing of the laminate (Figure 1 and Column 2, lines 1-17 and 30-33 and 40-42).

Allowable Subject Matter

8. Claim 18-21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

9. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest a method for manufacturing a formed headliner wherein a base member comprising a layer of hot melt adhesive, a polyamide film, a polypropylene film, a base material, and a nonwoven fabric is bonded to an air permeable top

cover member comprising a layer of hot melt adhesive laid in a pattern, a tricot, and a polyurethane foam where the layer of hot melt adhesive in a pattern on the top cover member allows trapped air to escape the laminate during bonding through only the permeable top cover member and not in the transverse direction.

As shown above by Winslow, Yoshida et al., Spielau et al., Simon, or Sato et al. it is well known in the art to bond two members using an adhesive laid in a pattern where air is allowed to escape through a transverse direction. Furthermore, Spielau et al. teach bonding two permeable members wherein air would also escape through the permeable members. However, none teach or suggest bonding a base member comprising a layer of hot melt adhesive, a polyamide film, a polypropylene film, a base material, and a nonwoven fabric to an air permeable top cover member comprising a layer of hot melt adhesive laid in a pattern, a tricot, and a polyurethane foam where the layer of hot melt adhesive in a pattern on the top cover member allows trapped air to escape the laminate during bonding through only the permeable top cover member and not in the transverse direction.

Response to Arguments

10. Applicant's arguments filed 9/25/02 have been fully considered but they are not persuasive. Applicant argues the cited references only allow trapped air to escape in the transverse direction. Applicant notes his invention allows air to escape through the top cover member and not in the transverse direction as in the cited references. The examiner has cited Winslow, Yoshida et al., Spielau et al., Simon, or Sato et al. as examples of the well known technique of bonding two members using a patterned adhesive to allow air to escape during

bonding. The examiner notes Spielau et al. teach bonding two permeable members using an adhesive in a pattern (Column 3, lines 17-22). Thus, during bonding of the two permeable members air would have escaped both through the permeable members and in the transverse direction. Furthermore, one of ordinary skill in the art would have readily appreciated that when bonding two members wherein at least one of the members is permeable using a patterned adhesive entrapped air would escape both through the permeable member(s) and in the transverse direction.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

John L. Goff
November 18, 2002

Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700